

REMARKS

Claims 1-14 and 16-36 are pending in the current application. Claims 1 and 28 are amended.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 2, 6, 8, 10, 12, 13, 21, 28 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yanagi et al. (US 2002/0063669, hereinafter “Yanagi”) in view of Nomura et al. (US 6,171,310, hereinafter “Nomura”).

Claim 1 recites “the liquid crystal layer having a characteristic that a viewing-angle-derived difference of luminance of pixels occurs between target pixels, which are at different positions and receive a same driving voltage, by a difference of their viewing angles on viewing from one viewing point, due to asymmetry of alignment direction of the liquid crystal molecules” and “a common electrode voltage supplying circuit for supplying common electrode voltages to the common electrodes, said common electrode voltage supplying circuit being capable of adjusting the common electrode voltages and changing magnitudes of the common electrode voltages depending on a position of the pixels in the liquid crystal panel so that such driving voltages as to ***decrease the viewing-angle-derived difference of luminance of pixels*** are generated”. Yanagi fails to teach these limitations.

Applicants note, on page 26 of the March 6, 2009 Final Office Action, the Examiner references FIGS 12 and 13, and paragraphs [0128] – [0129] of Yanagi, and asserts that Yanagi teaches changing the common electrode voltages (Vcom1 and Vcom2) depending on positions of the pixels in the liquid crystal panel in a manner similar to that recited in claim 1.

Further, on pages 3 and 4 of the Office Action, the Examiner references paragraph [0038] of Yanagi and states that Yanagi teaches a display that allows for reducing the difference in brightness that occurs between the top (uppermost line) and bottom (lowermost line) of the display screen in frame inversion drive. The Examiner also states that Yanagi works to solve the same problem with differences in brightness or luminance that occurs from different viewing angles or from the top and bottom. Applicants respectfully disagree with the Examiner's interpretation of the teachings of Yanagi.

As is discussed in paragraph [0047] of Yanagi, in frame inversion drive, the effective value of the voltage applied across the liquid crystal, i.e., the driving voltage, is influenced such that the driving voltage is reduced due to each parasitic capacitance in each display cell. Since this influence from the parasitic capacitance varies between lines of the display panel, the difference of brightness ***which is due to the difference of the driving voltages*** occurs in the displayed image. Yanagi ***decreases the difference of the driving voltages*** between pixels in order to reduce the difference of brightness. However, Yanagi is ***silent*** with respect to a difference in viewing angles between lines and a difference in brightness ***which is due to the difference of the viewing angles***.

On the contrary, with respect to subject matter of claims 1 and 28, even when the same driving voltage is applied to plural pixels, a difference of the positions of the pixels generates a difference of viewing angles (for example, elevation angles) from the observer. Consequently, a difference of brightness ***which is due to the difference of the viewing angles*** occurs in the displayed image. With respect to the subject matter of claims 1 and 28, the device ***adds such suitable offset values to the driving voltages*** corresponding to the positions of the pixels as to reduce this kind of difference of brightness. An example of this feature is described from page 44, line 24

to page 45, line 13, and from page 79, line 22 to page 82, line 4 of Applicants' originally filed specification. Accordingly, Yanagi and the subject matter of claims 1 and 28 address two different issues. Specifically, nothing in Yanagi, or Nomura, alone or in combination teaches "adjusting the common electrode voltages and changing magnitudes of the common electrode voltages depending on a position of the pixels in the liquid crystal panel so that such driving voltages as to decrease ***the viewing-angle-derived difference of luminance of pixels*** are generated" (emphasis added) as claims 1 and 28 require. Accordingly, neither Yanagi, nor Nomura, alone or in combination, teach each of the limitations of either of claims 1 or 28. Consequently, the Examiner cannot establish a *prima facie* case of obviousness with respect to either of claims 1 or 28, or any claims depending from claims 1 or 28, as is required to support a rejection under §103.

Therefore, Applicants respectfully request the rejection of claims 1, 2, 6, 8, 10, 12, 13, 21, 28 and 35 under 35 U.S.C. § 103 be withdrawn.

Claims 3-5, 7, 9, 11, and 16-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yanagi and Nomura, and further in view of Tomita et al. (US 5,686,932, hereinafter "Tomita").

The deficiencies of Yanagi and Nomura are discussed above and are relevant here as well because claims 3-5, 7, 9, 11, and 16-18 depend from claim 1. Tomita fails to remedy these deficiencies. Accordingly, at least by virtue of their dependence from claim 1, the Examiner cannot establish a *prima facie* case of obviousness with respect to any of claims 3-5, 7, 9, 11, and 16-18 as is required to support a rejection under §103.

Therefore, Applicants respectfully request the rejection of claims 3-5, 7, 9, 11, and 16-18 under 35 U.S.C. § 103 be withdrawn.

Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yanagi and Nomura as modified by Tomita, in view of Nakao et al. (US 2001/0003431, hereinafter "Nakao").

The deficiencies of Yanagi, Nomura, and Tomita are discussed above and are relevant here as well because claim 20 depends from claim 1. Nakao fails to remedy these deficiencies. Accordingly, at least by virtue of its dependence from claim 1, the Examiner cannot establish a *prima facie* case of obviousness with respect to claim 20 as is required to support a rejection under §103.

Therefore, Applicants respectfully request the rejection of claim 20 under 35 U.S.C. § 103 be withdrawn.

Claims 22-27, 29, 33, 34, and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yanagi and Nomura in view of Nakao.

The deficiencies of Yanagi and Nomura are discussed above and are relevant here as well because claims 22-27 depend from claim 1, and claims 29, 33, 34, and 36 depend from claim 28. Nakao fails to remedy these deficiencies. Accordingly, at least by virtue of their dependence from claims 1 and 28, the Examiner cannot establish a *prima facie* case of obviousness with respect to any of claims 22-27, 29, 33, 34, and 36 as is required to support a rejection under §103.

Therefore, Applicants respectfully request the rejection of claims 3-5, 7, 9, 11, and 16-18 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-14 and 16-36 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. §1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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